

**Remarks:**

This amendment E is provided in response to the non-final Office Action of December 29, 2003.

**General Summary of Amendment E**

**Claims:**

Claim 30 is amended in response to Examiner's objections.

Claims 31-33 are dependent on claim 30, and are amended to remain consistent to amended recitations of claim 30.

Claim 34 is canceled.

Claim 35 is dependent on claim 30, and is amended to remain consistent to amended recitations of claim 30.

Claims 36-37 are canceled.

Claim 37 is canceled by this amendment.

Claims 38-41 are previously presented and remain unchanged.

Claim 42 is amended to correct a minor spelling error.

Claim 43 is amended in response to Examiner's objections.

Claims 44-46 are dependent on claim 43, and are amended to remain consistent to amended recitations of claim 43.

Claim 47 is canceled.

Claim 48 is dependent on claim 43, and is amended to remain consistent to amended recitations of claim 43.

Claims 49-54 are canceled.

Claim 55 is new-withdrawn.

**Applicant's Response to the Detailed Action-  
Claim Numbering (Numbered Item 2)**

Original claim 4 , dependent on original claim 1, was drawn to the alternative embodiment shown in figs. 11-14, and was intended to be withdrawn pending allowance of generic claim 1 (now amended claim 30). Applicant erroneously canceled claim 4 in Amendment C of June 11, 2003. It is Applicant's understanding that claim 4 was withdrawn by Examiner per the restriction of the Office Action of Aug. 29, 2002. Applicant assumes that once a claim generic to all embodiments of the original application is allowed, the restriction will be removed, and an opportunity to submit additional claims specifically covering the alternative embodiments will be presented. Applicant thus submits new claim 55 as withdrawn to replace original claim 4.

**Applicant's Response to the Detailed Action-  
Claim Objections (Numbered Item 3)**

Examiner objects to the improper recitation of the word "said" in line 2 of paragraph (d) of claims 30, 43, and 49.

Applicant has amended claims 30 and 43 to remove the improper recitation of the word "said" immediately after "second" in line 2 of paragraph (d) of each of claims 30 and 43.

**Applicant's Response to the Detailed Action-  
Claim Rejections 35 USC § 112 (Numbered Item 5)**

Examiner states: "the recitation in lines 3-4 of paragraph (f) of claim 30 that the gauge cylinder being "a minimum distance from said spindle axis in the absence of said binding" is unclear. It is unclear as to what distance away from the spindle axis the gauge cylinder is tangent to the shoe supporting surface." The same objection is made to an identical recitation of claim 43, in lines 9-10 of paragraph (g).

Claim 30 is now amended in paragraphs (b) and (d), to recite, respectively, a first and an optional second:

“...unbound shoe supporting means for supporting at least a majority of a rider's weight through a rider's shoe on its sole, without attachment of said shoe to said [first/ either said first or said optional second] unbound shoe supporting means, rotatably attached to said spindle, said [first/first or optional second] unbound shoe supporting means having in a [first/second] generally horizontal shoe receiving orientation, a [first/second] surface means....”

Thus a means for supporting a rider's shoe, without attachment of the shoe to the pedal (via a cleat/binding system, or other means), also referred to as unbound pedaling mode, is more definitely introduced, and is structurally defined by the following limitations in paragraphs (b) and (d), on a first (b), and second (d) side of the pedal, in first (b) and second (d) shoe receiving orientations :

”... a [first /second] surface means located above said spindle, consisting of all generally shoe facing surface portions of said [first / first or optional second] unbound shoe supporting means, including any edges of said surface portions, said [first / second] surface means having at least one surface portion located on each side of a vertical plane through said spindle axis...”.

Thus each shoe supporting surface, now recited more generally as a “surface means”, is firstly oriented rotationally about the spindle axis to be in a generally horizontal shoe receiving and supporting position, as shown in figures 3A-3D, 4A, 4B, 7, 8, 12A-12D, and 14. Secondly, each surface means consists of all upward shoe facing surface portions and any edges, on each shoe receiving side of the shoe supporting means. This avoids any ambiguity as to which surface portions are to be considered as part of the surface means, and which are not. Finally, each surface means is further limited to have surface portions on both sides of a vertical plane through the spindle axis.

Thus the shoe supporting surface of previous claim 30 is now unambiguously and fully defined in this amended claim 30, whereby a single height of this surface means can be determined, as described in the following paragraphs. Claim 43 is amended in an identical manner as described above, to recite unbound shoe supporting means (singular, or optionally plural) having surface means identical to claim 30. Claim 43, however, does not recite heights of surface means or bindings, and

does not use reference or gauge cylinders for any pedal state or mode determination, instead utilizing a reference plane for pedal state or mode determination.

Claim 30 is amended in paragraph (f) to recite, on each side of the pedal, a height of each surface means defined by the distance from the spindle axis to a first :

“...imaginary gauge cylinder touching said surface means on both sides of said vertical plane without intersection of said first cylinder with said first or said optional second unbound shoe supporting means, in the absence of said corresponding binding, said first cylinder having its axis of rotation aligned parallel to said spindle axis, said first cylinder having a radius of 8 inches ...”.

As before, the first cylinder is limited to be of a given radius, with its axis parallel to the spindle axis. It is further limited to touch surface portions that are both rearward of the spindle axis and forward of the spindle axis, when the pedal is in a typically horizontal shoe receiving and supporting position, and without the binding being present. Finally, the first cylinder is limited to have no intersection with either the first or the optional second unbound shoe supporting means. These limitations define the cylinder to be tangent to the surface means, in a general sense, that is without a requirement for the slope of the cylinder to be identical to the slope of the shoe supporting surface portion at the point of coincidence, as a strict definition of the word tangent might require. This further allows any sharp edges of the surface means to be included in the surface means. For a cylinder of a given radius, with its axis constrained to a given direction but free to move in the plane normal to the axis, its position can always be definitively and uniquely located by being generally tangent to (touching) a surface in two places. Only in special cases, such as when the surface has the same curvature and axial orientation as the cylinder, can more than two points be tangent. For only one point of general tangency, and without other positional limitations, there are an infinite number of possible locations for the cylinder, as Examiner remarks in item 9.

In a similar manner, the second cylinder of claim 30, is now recited as:

“ ..touching the uppermost surface of said binding, said second cylinder having no intersection with said binding, each said second cylinder having a radius of 8 inches,

each said second cylinder having its axis of rotation aligned parallel to the corresponding said first cylinder axis on the same side of the pedal, each said second cylinder axis being constrained to lie in the plane defined by said spindle axis and said corresponding first cylinder axis, ...“

The second cylinder is now definitively limited to have its axis of rotation constrained to be both parallel to the spindle axis and to lie in the plane defined by the spindle axis and the first cylinder axis. Thus only one point of general tangency with the binding is needed to fix the location of the second cylinder.

For all embodiments of the present invention, these limitations are sufficient to completely determine each first cylinder position relative to its corresponding surface means, and thus the surface means height is fully defined, in any given pedal state, or configuration. In a similar manner, these limitations are also sufficient for completely determining the position and thus the height of each binding, for any given pedal state or configuration. These limitations also unambiguously define a similar unbound shoe supporting surface means height, and a binding height for the prior art, including the invention of Ueda '930, in any given configuration, or pedal state.

More particularly, for the preferred embodiment, only a single (textured) surface means is present on each side of the pedal, and each surface means can be divided into two surface portions, one on each side of a vertical plane through the spindle axis. The cylinder would then be located to touch both surface portions at the intersection of the vertical plane and the shoe supporting surface means. The generally vertical axis of figure 8 shows this intersection clearly, and also shows that there is no intersection of the first cylinder with any part of the first unbound shoe supporting means (no optional second shoe supporting means being present). That is, no part of the first cylinder intersects or “cuts” the unbound shoe supporting means consisting of pedal body 14. Once this first cylinder is located, thus defining the constraining plane for the axis of the second cylinder, the second cylinder is easily located to be generally tangent to, or touch, without intersection, the binding, as shown in figure 8.

Similarly, for the alternative embodiment, as shown in figure 12B, the combination of front and rear shoe supporting surface sections 115F and 115R, respectively, and their edges, are defined to be the surface means, and only one unique position of the first cylinder allows it to touch the surface means

on both sides of a vertical plane through the axis without intersection of the cylinder with any part of the unbound shoe supporting means consisting of front and rear rails **142** and **143**, respectively.

The preferred embodiment of Ueda '930 shows, in figs. 4, 5A, and 5B that tread surface **49** has, in a generally horizontal shoe receiving position, surface portions on both sides of a vertical plane through the spindle axis. Since the surface means of claim 30 is limited to include all generally shoe facing surface portions of a shoe supporting means, the upper or top surface portion of brace member **55** must be included in the surface means, along with tread surface **49**. The first unbound shoe supporting means of claim 30 would then best be interpreted to comprise tread cage 5, including brace member **55**, even though no unbound shoe supporting function is possible. In the absence of cleat engaging members **30** and **31**, the only possible cylinder position that can touch the surface means without intersecting tread cage 5 or brace member **55** would be a cylinder tangent to the top surface portion of brace member **55** and touching the leading edge of tread surface **49**. This is easily visualized to be a stable and definite cylinder location. A cylinder touching tread surface **49** at the intersection of tread surface **49** and a vertical plane through the spindle axis would place the top surface of brace member **55** well inside the cylinder, intersecting it, and thusly disallowed. Thusly, the height of a surface means as claimed in claim 30, is unambiguously defined for the prior art, in particular the prior art of Ueda '930.

In like manner, claim 43 is amended to recite a surface means defined identically to that of claim 30. No heights are defined, however a “gauge reference plane is established for the purpose of defining unbound and clipless binding modes or pedal states. In a manner similar to the first cylinder of claim 30, claim 43 recites this reference plane as:

“ touching said corresponding surface means on both sides of said vertical plane [through said spindle axis], without intersection of said plane with said [first/second] unbound shoe supporting means, in the absence of said binding.”

Thus a “gauge” or reference plane is substituted for the gauge cylinder of claim 30, and is positioned with respect to the surface means in the same manner as claim 30, with one minor difference. If the reference plane touches the surface means at the same location as the cylinder of claim 30, the plane will have substantial intersection with the unbound shoe supporting means, which

is disallowed by claim 43. Thus the plane must be located to touch only the front and rear edges of the shoe supporting surface **15**. In a similar manner, the plane can clearly be located to touch front and rear shoe supporting surface sections **115F** and **115R** in only one position without intersecting the unbound shoe supporting means comprising front and rear rails **142** and **143**, respectively. This uniquely defines the position of the reference plane with respect to the surface means. Similarly, for the surface means of the preferred embodiment of Ueda '930, a plane touching front and rear surface portions of tread surface **49** at the intersection of a vertical plane through the spindle axis will have substantial intersection with brace member **55** which, by virtue of having a shoe facing surface in a generally horizontal shoe receiving orientation, comprises part of the shoe supporting means of claim 43. The reference plane of claim 43 can only be located to touch the top surface of brace member **55** and the front edge of tread surface **49**, thus locating the plane in a unique position relative to the surface means. Thus claim 43 is generic to any embodiments of the present invention, in a similar manner to claim 30.

**Applicants Response to the Detailed Action-  
Claim Rejections - 35 USC§ 102 (Numbered Item 7)**

The above recitations of claim 30 unambiguously define an unbound shoe supporting surface means that is limited to one which is capable of supporting any significant force or pressure from rider's shoe without assistance from any other part of the pedal. The surface means being limited to having surface portions on both sides of a vertical plane through the spindle axis assures that the surface means and thus the unbound shoe supporting means (containing the surface means and transmitting pedaling force to the spindle) can support at least a significant fraction of the riders weight, without attachment of the shoe to the pedal.

For example, the equivalent shoe supporting surface means of Ueda '930, as now claimed in the presently amended claim 30 of the present invention would comprise both the top surface portion of brace member **55** and at least the forward section of tread surface **49** in combination. The top surface of brace member **55** cannot, by itself, support a majority of the rider's weight, nor even a significant portion of a rider's weight, since it does not have extension on both sides of a vertical plane through the spindle axis when in a shoe receiving position. The application of even a slight

downward force from a rider's shoe on the top surface portion of brace member 55 causes an unbalanced torque on the pedal about the spindle axis. This will cause the pedal to rotate about the spindle axis until a surface portion in front of a vertical plane through the spindle axis contacts the rider's shoe and an opposing torque can be developed which then stabilizes the pedal orientation, allowing full transmission of pedaling force to the spindle.

Claim 30 unambiguously defines, for a given pedal state, a height of this surface means and a height of its corresponding binding that allow direct height comparison for the purpose of determining whether the pedal is operable in unbound mode or in clipless binding mode. More specifically, if the height of the surface means is generally equal to or greater than the height of its corresponding binding, the pedal is only operable in unbound mode, with a shoe having a sole recessed cleat, or a shoe not having a cleat. If the height of the binding is greater than the height of its corresponding surface means by a distance equal to or greater than the depth of engagement of the cleat with the binding, the pedal is operable only in clipless binding mode. This latter condition is assured by reciting an additional limitation in paragraphs (c) and (e) of claim 30:

“said cleat having a depth of engagement with said binding”

and reciting in paragraph (i) a relative height variability means:

“...and providing for positioning and securely holding, under significant pedaling shoe force, said heights of said bindings greater than said heights of said corresponding surface means by at least said depth of engagement.”

Thus claim 30 not only distinguishes the present invention over the prior art, but also defines usefulness over the prior art in accordance with 35 USC § 101, by defining a pedal which can be used in clipless binding mode and in unbound mode, exclusive of each other, on one, or both sides of the pedal.

The cleat depth of engagement with the binding is easily seen by comparing figures 3C and 4B, and is, in figure 8, generally equal to HB'-HS. However, since the invention is not directed to any specific cleat and binding system, but is intended to be useful for a variety of cleat and binding



systems, the depth of engagement may differ from the example of this application.

Thus a gauge cylinder of eight inch radius, whose axis of rotation is maintained parallel to the spindle axis, and is touching, on both sides of a vertical plane through the spindle axis, the surface means comprising the top surface portion of brace member 55 and tread surface 49 would touch the top surface portion of brace member 55 and also touch the leading edge of tread surface 49, in the absence of cleat engaging members 30 and 31. Since a plane touching these two locations would significantly intersect front cleat engaging member 30, it can be easily deduced that front cleat engaging member 30 would have significant intersection with this gauge cylinder, and would therefore prevent any shoe sole having a shape resembling the gauge cylinder from being supported on this surface means. It can be seen from figures 5A and 5B, that Ueda neither shows, nor teaches a position of front cleat engaging member 30 that will not intersect the cylinder of claim 30 touching the surface means of claim 30, in the manner prescribed by claim 30. Thus the novel structure of amended claim 30 is unobvious from the prior art.

In a similar fashion, claim 43 recites a “gauge” or reference plane that is parallel to the spindle axis and touches the surface means on both sides of a vertical plane through the spindle axis, without intersection of the plane with the unbound shoe supporting means. Thus the plane is established to be generally tangent to the surface means in two places that are sufficient to describe the general position and outline of a shoe sole stably supported on the shoe supporting means in unbound mode. Given that a plane is only a generally reasonable representation of a shoe sole, one which is not as accurate as the cylinders of claim 30, additional recitations are added to claim 43 that allow the reference plane to function as a definite indicator of the ability of any purported combined function pedal state to provide either clipless binding or unbound mode. Claim 43 recites in paragraph (g) a relative position variability means providing for varying and securely holding the relative position of each said binding and each said corresponding surface means:

“whereby each said binding intersects a plane ... sufficiently to allow said cleat to attach to said bindings”

Thus claim 43 recites a more general distinction between the clipless binding mode and unbound mode pedal states of the present invention, or any other pedal purportedly having dual

mode functionality on the same side or sides of the pedal.

It can be seen from figures 5A and 5B, that Ueda neither shows, nor teaches a position of cleat engaging member 30 that will not intersect the plane of claim 43 touching the surface means of claim 43, in the manner prescribed by claim 43. Cleat engaging member 30 would interfere with the ability a shoe sole to make proper contact with the surface means comprising the top surface of brace member 55 and the forward edge of tread surface 49. The pedal of Ueda '930 thus cannot provide unbound pedal functionality which the present invention provides. Thus the novel structure of amended claim 43 is both unobvious from the prior art and useful in accordance with 35 USC § 101.

Tread surface 49, by itself, is shown in figs. 4 and 5B to have contact with the partial sole portion of a shoe having a partially recessed cleat, with the cleat engaged with the binding. Tread surface 49, having surface portions on both sides of a vertical plane through the axis, could, without the presence of cleat engaging members 30 and 31, support a rider's weight on a shoe sole having a partially recessed cleat, as pictured in figs 4 and 5B but not a fully recessed cleat, where the sole fully surrounds the cleat on all sides. Ueda neither shows nor describes a sole, or sole portion of a shoe being supported only on tread cage 49, without attachment of the cleat with cleat engaging member 30 and 31 and it is clear that Ueda teaches no relative height variability means which can retract cleat engaging members 30 and 31 below tread surface 49 to allow tread surface 49 to support even the partially recessed sole without attachment of the cleat to the binding comprising cleat engaging members 30 and 31. Thus, even without the full set of limitations for a surface means according to claims 30 and 43, tread surface 49 cannot be considered, by itself, as the surface means of a "shoe supporting means for supporting a rider's weight, through said rider's shoe, on its sole, without attachment of said shoe to said means", and thusly does not anticipate the present invention.

**Applicant's Response to the Detailed Action-  
Response to Arguments (Numbered Item 9)**

Examiner firstly objects to the reference cylinders of claim 30 and the reference plane of claim 43 as being not specifically defined, there being an infinite number of cylinders or planes parallel to the spindle axis and tangent to a shoe supporting surface, or binding, as claimed prior to

this amendment.

Examiner secondly objects to claim 30 reciting a (second) reference cylinder for the the bindings as not limited to being orientated parallel to the first cylinder for the shoe supporting surfaces, as depicted in figure 8.

Examiner thirdly objects to the shoe supporting surface of claims 30-35, and 43-54 being extremely broad, and thusly inclusive of guide member 56, by itself, qualifying as a shoe supporting surface. Examiner states that, for a shoe supporting surface consisting only of guide member 56, the bindings of Ueda '930 are varied such that the height of bindings are (a) generally less than the shoe supporting surface and (b) the heights of the bindings are substantially greater than the height of the shoe supporting surface, thus anticipating the present invention.

Applicant will firstly address Examiner's third objection, as Examiner's first objection follows from the third objection.

Examiner's objection to the shoe supporting surface recited in paragraph (b) and (d) of claim 30 as being overly broad, and thusly inclusive of guide member 56 of Ueda '930 is overcome by amending claim 30 to more precisely and distinctly define the shoe supporting surface of the invention over a shoe supporting surface consisting only of the top surface of brace member 55 of Ueda '930.

Applicant believes a more correct citation of an equivalent shoe supporting surface is the upward shoe facing, or top surface portion of brace member 55, rather than guide member 56. Figure 4 is drawn inconsistent with figs 5A, 5B, and the specification. In column 4 of Ueda '930, lines 14-18 read:

“A brace member 55 that projects upward is formed on both sides at the rear end of frame 50 of the tread cage 5. In this embodiment the brace member 55 has a semicircular cross-section, and the rear end thereof is a guide member 56 to guide the cleat smoothly.”

Applicant believes that only the rear-facing surface portion of brace member 55 is defined to be guide member 56, and its purpose is to allow the cleat to be engaged to the pedal in forward sliding motion without catching on a sharp edge. This is clearly shown by the lead lines in figures 2, 5A, and 5B, though it is less clearly shown in figure 4, which is drawn inconsistent with the description and

figures 2, 5A, and 5B. The surface portion which contacts the shoe when in the cleat engaged position is the generally upward facing surface portion of brace member 55, which is not labeled, but can be determined in figures 4 and 5B, which show a shoe sole in contact with brace member 55.

Claim 30 and claim 43 now limit the shoe supporting surface to include all generally shoe facing surface portions of the unbound shoe supporting means, including any edges of these surface portions. Thus the surface means of Ueda '930 must now include both the top surface portion of brace member 55 and tread surface 49, including the front edge of tread surface 49.

Claim 30 and 43 now recite, on each side of the pedal, with the pedal in “a generally horizontal shoe receiving orientation”, a “surface means having shoe facing surface portions on each side of a vertical plane through the spindle axis”. The top surface portion of brace member 55 only has a surface portion on one side of a vertical plane through the spindle axis, and thus cannot be considered a “surface means”. Tread surface 49 alone meets this requirement, but is disallowed by the requirement of the previous paragraph. The combination of tread surface 49 and the top surface portion of brace member 55 also meets this requirement, and is allowed by the previous requirement.

Thus the only possible surface means of claim 30 or claim 43 that can be found in the invention of Ueda '930 is the combination of tread surface 49 and the top surface portion of brace member 55. Therefore Examiner's third objection is overcome for claims 30-35 and 43-48.

Examiner's first objection to claims 30-35 and 43-48 are overcome by amending both claim 30 and claim 43 to further limit the first reference cylinder (claim 30) or plane (claim 43) to touch the surface means) on two surface portions, one portion on each side of a vertical plane through the spindle, without intersection of the cylinder or plane with the unbound shoe supporting means, in addition to being parallel to the spindle axis. The recitation of “touching ...without intersection” defines the first reference cylinder and reference plane to be generally tangent, in a physical sense to the surface means either in a single definite location or at two definite locations. Either condition definitively and unambiguously locates the cylinder or plane relative to the surface means. For a continuous platform type surface means, such as the preferred embodiment, the first cylinder will touch the surface means at a single definite location (at the intersection of the vertical plane through the spindle axis and the surface means), and the reference plane will touch at two definite locations (at the fore and aft edges of the surface means). For the alternative embodiment, and the prior art of Ueda '930, both the first reference cylinder and the reference plane will touch the surface means at

two definite locations.

Once the first cylinder of claim 30 is definitely located, the second reference cylinder can be definitely located. Examiner's second objection to claim 30, with regards to the indefinite location of the reference cylinder for the bindings is overcome by amending claim 30 to eliminate references to a first and second axis of the first and second cylinders, respectively, and to instead recite:

“ said first cylinder having it's axis of revolution aligned parallel to said spindle axis”  
and

“...said second cylinder having it's axis of revolution aligned parallel to the corresponding said first cylinder axis...”

The axis of the second cylinder for the bindings is now specifically recited to be the axis of revolution, rather than reciting the cylinder as merely “having an axis” which does not specifically refer to the natural axis of revolution which defines the shape of the cylinder, and could possibly be interpreted to be any arbitrary axis. Similarly, the first cylinder axis is unambiguously defined. Figure 8, being a side view with the spindle axis normal to the paper clearly shows the second cylinder defining the distance HB as a single arc, thus having its axis normal to the paper as well. Thus, Examiner's second objection is overcome. Therefore, all objections to claims 30-35 and 43-48 have been overcome.

#### **Additional Remarks**

These limitations of claim 30 and 43 now define a shoe supporting surface in a more generalized manner, thus allowing either a single surface consisting of adjoined surface portions, as in the preferred embodiment, or as a composite surface consisting of separate surface portions, as in the alternative embodiment of figs. 11-14, that is capable of supporting at least a majority of a rider's weight. A supporting surface present on only one side of a vertical plane through the spindle axis cannot, by itself, support any significant fraction of a rider's weight or shoe force, when in a shoe facing orientation, as the pedal will immediately rotate about the spindle axis until a second outward

or shoe facing surface on the opposite side of the aforementioned vertical plane comes into contact with the shoe sole, with sufficient force to stop any further rotation of the shoe supporting means with respect to the shoe sole. Claims 30 and 43 now recite an “unbound shoe supporting means for supporting at least a majority of said rider's weight through a riders shoe on its sole” in order to further distinguish over the brace member 55 of Ueda '930 which is rotatably spring biased relative to the bindings and thus only capable of providing a small amount of stabilizing force against a flat or convex soled riders shoe in a cleat engaged position. Furthermore, since brace member 55 lies wholly on one side of the pedal axle, it cannot by itself, provide any support to the riders' shoe as it, (along with the whole pedal) will simply rotate under applied shoe force until some upward facing part of the pedal on the opposing side of the spindle axis comes in contact with the shoe. For this reason claims 30 and 43 now recite a shoe supporting “surface means” for supporting a shoe that [in aggregate have extension on both the fore/aft sides of the spindle axle] and can thus support at least a majority of the rider's shoe sole in a stable manner at least a majority of a riders weight. Typically such a surface means will fully support a rider's weight and pedaling force, however as claimed, this shoe supporting means may allow slight contact between a shoe cleat and the top surface of the binding, generating a minor force between them.

Since the limitations in paragraph (b) of claim 30 introduces the spatial relationship between the shoe supporting surface means and the spindle before the spatial and connective relationship between the shoe supporting means and the spindle have been defined as in paragraph (h) of previous claim 30, the recitation “rotatably connected to spindle axis” is added to paragraph (b), antecedent to the revised definition of the shoe supporting surface means, and paragraph (h) is subsequently deleted. Claim 43 is amended in an identical manner.

Claims 49-54 are canceled as being drawn only to the single continuous surface means of the preferred embodiment of the present invention, and thus not being useful for defining the present invention over the prior art.

Claims 31-33, and claim 35 are dependent on claim 30 and are amended to remain consistent with the amendments of claim 30.

Claims 44-48 are dependent on claim 43 and are amended to remain consistent with the amendments of claim 43.

**Conclusion**

For the reasons given above, Applicant respectfully submits that all remaining claims in question are now in proper form, and that all claims now define patentability over the prior art. Therefore, Applicant submits that all claims of the application are now in condition for allowance, which action Applicant respectfully solicits. Furthermore, Applicant submits that claims 30 and 43 are generic to the various alternative embodiments of the invention, and respectfully solicits removal of the requirement for restriction and allowance of claim 55 which is directed to specifically cover the alternative embodiment.

Very Respectfully,

A handwritten signature in black ink, appearing to read "Derek Shuman", written in a cursive style.

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